



Sacred Heart
UNIVERSITY

Sacred Heart University
DigitalCommons@SHU

Certificate of Advanced Studies (CAS) in Literacy

Isabelle Farrington College Of Education

4-24-2018

Discourse in the Elementary Classroom

Kathryn Hardy
Sacred Heart University

Follow this and additional works at: <http://digitalcommons.sacredheart.edu/lit>

 Part of the [Higher Education Commons](#), [Language and Literacy Education Commons](#), and the [Teacher Education and Professional Development Commons](#)

Recommended Citation

Hardy, K. (2018). Discourse in the elementary classroom. Unpublished Certificate of Advanced Study Thesis, Sacred Heart University, Fairfield, CT. Retrieved from <http://digitalcommons.sacredheart.edu/lit/1>

This Certificate of Advanced Study is brought to you for free and open access by the Isabelle Farrington College Of Education at DigitalCommons@SHU. It has been accepted for inclusion in Certificate of Advanced Studies (CAS) in Literacy by an authorized administrator of DigitalCommons@SHU. For more information, please contact ferribyp@sacredheart.edu, lysobeyb@sacredheart.edu.



**Sacred Heart
UNIVERSITY**

ISABELLE FARRINGTON COLLEGE OF EDUCATION

April 24, 2018

This is to certify that the action research study by

Kathryn Hardy

katieahardy2@gmail.com

has been found to be complete and satisfactory in all respects,

and that any and all revisions as required by

CT Literacy Specialist Program have been made.

College of Education

Department of Leadership and Literacy

EDR 692 - Applied Reading and Language Arts Research

Discourse in the Elementary Classroom

Advisor: Dr. Karen C. Waters

Abstract

As literacy standards across the country grow more rigorous, literacy practices need to follow suit. With the implementation of the Common Core Speaking and Listening Standards in 2010, classroom instruction in the facilitation of student discourse has become not only beneficial, but required. The purpose of this study was to examine the effects of an instructional framework for student discourse called Statement Stem Discourse/Accountable Talk (SSD/AT). This instructional frame included discussion stems, teacher prompts, and guidelines for student responses. This study observed the impacts of discourse on 19 students over the course of six weeks. With a focus on questions stems, we scaffolded expectations to extend students' oral participation, critical thinking, reading comprehension, and text interpretation. The findings concluded that discourse around literature led to increased comprehension, effective strategies for teacher facilitation of discourse, and beneficial discourse strategies to use in the classroom. Overall, the study revealed that implementing discourse into daily literacy instruction had a significant impact on literacy achievement.

Keywords: *Student discourse, accountable talk, quality talk, discussion, literacy, comprehension, engagement, communication, speaking and listening*

Table of Contents

Section 1: Introduction to the Study	5
Background of the Study	6
Problem Statement	8
Theoretical Perspective	9
Research Questions	9
Section 2: Literature Review	10
Historical Perspectives	10
Deepening Comprehension	11
Section 3: Methodology	18
Introduction	18
Participants	19
Materials	20
Statement Stem Discourse	20
Procedure	21
Section 4: Data Collection and Analysis	23
Process for Generating, Gathering, and Recording Data	23
Results	24
Section 5: Discussion, Recommendations, Conclusion	26
Overview	26
Findings and Interpretations for Research Question 1	26
Findings and Interpretations for Research Question 2	27
Findings and Interpretations for Research Question 3	27
Findings and Interpretations for Research Question 4	28

Recommendation for Further Study.....	28
References.....	30
Appendix A: Student Discussion Data Collection Chart.....	41
Appendix B: Student Discussion Rubric.....	41
Appendix C: Teacher Prompts.....	42
Appendix D: Written Response Rubric.....	42
Table 1: Mean of Student Responses	43
Table 2: Teacher Intervention.....	43
Table 3: Mean of Student Comprehension.....	43

Section 1: Introduction

With the implementation of the Common Core State Standards, classroom instruction in the facilitation of student discourse has become not only beneficial, but required. The first anchor standard for speaking and listening requires students of all ages to “prepare for and participate effectively in a range of conversations and collaborations with diverse partner, building on others’ ideas and expressing their own clearly and persuasively” (NGA & CCSSO, 2010, p.22). Yet, many studies indicate that conversation appears to be lacking in many classrooms across the country (Galton, 2007; Nystrand et al., 2003; Reznitskaya & Glina, 2013; Smith, Hardman, Wall, & Mroz, 2004). Thus, this requirement implies that teachers will need to practice the art of facilitating classroom discourse, if students are to engage with one another and the teacher in meaningful discussion.

Student discourse is a text-based format for active, extended, and responsive dialogue between teacher and student that considers dissenting opinions and respects the learner. Discourse has the potential to inspire collaborative work, idea sharing, a sense of belonging to a social community, and a context for intellectual growth that can be documented through outcome assessment (Dewey, 1933; McVittie, 2005; Nichols, 2006). The idea of a highly interactive and discussion-based classroom is nothing profound; however, ample evidence suggests that interactive classroom discussions around the meaning of a text result in significant literacy gains and improved communication skills (Murphy, Soter, Wilkinson, Hennessey & Alexander, 2009; Lawrence & Snow, 2011; Rosaen, Meyer, Stranchanz & Meier, 2016). Student discourse is an inherent and natural part of learning. It is the glue that holds reading, writing, and thinking together (Langer, 2002). Student discourse should become a common practice in all classrooms.

To promote student-directed and accountable discussions around a text, teachers need to explicitly model and teach students how to think deeply about a text, construct high-level questions, and respond appropriately to their peers. The 21st century classroom should no longer be a teacher-led classroom, but a classroom where teachers and students act as co-inquirers into complex issues, as they share responsibilities for managing group participation, asking questions, and evaluating each other's judgments through reasoning and reflection (Billings & Fitzgerald, 2002; Mercer & Littleton, 2007; Nystrand et al., 2003; Reznitskaya & Glina, 2013; Soter et al., 2008). Student discourse is not a goal that only experienced and accomplished teachers should strive towards, but should become a standard practice in all elementary school classrooms.

Background

In 2010, Connecticut adopted the Common Core State Standards, a set of college and career readiness standards for students in kindergarten through grade twelve with students beginning to take the Smarter Balanced Assessment, one of two high-stakes examinations aligned with the Common Core Standards beginning in third grade. In 2016, only 55.7% of students in Connecticut met or exceeded the achievement standard in English-Language Arts on the exam. This results in over 40% of students in Connecticut falling below the achievement standard in reading (Connecticut State Department of Education, 2016). With the implementation of CCSS, standards had to be more rigorous and aimed at preparing students for higher education and careers. The expectation is that with the implementation of the new standards, student achievement would rise. In reality, student literacy achievement has not increased in past years. According to the Common core State Standards, “to build a foundation for college and career readiness, students must have ample opportunities to take part in a variety of rich, structured conversations—as part of a whole class, in small groups, and with a partner”

(NGA & CCSSO, 2010, p .48). While the standards are essential to promoting student engagement and critical thinking that lead to strong literacy foundations in students, the results of the Smarter Balanced assessment indicate they are not being met.

The importance of talking to learn has been well documented to elevate student reading achievement, increases student success, and promote a classroom environment where students are comfortable to take risks, share experiences, offer differing viewpoints, and disagree respectfully with one another (Langer, 2006; Nystrand, et al. 2003; Townsend & Pace, 2005). When this is not present in elementary classroom, student growth can become stagnant and the classroom teacher is not delivering a high quality of education that all students are entitled. With the consistent practice of student discourse taking place during reader's workshop, students are engaged actively in literacy activities and develop an attitude of enthusiasm and positivity towards reading (Lacour, McDonald, Tissington, & Thomason, 2017; Snow& Tabors, 1996). With this attitude towards reading, students will be engaged and student growth will become the forefront of the twenty-first century classroom.

The elementary school classroom sets the foundation for a child's learning as they continue through middle school, high school, and college. Calkins (2010) proposed that through reading workshop, students can become avid, reflective, critical readers who comprehend with depth and vigor and who construct richly literate lives for themselves in and out of school" (p. 107). In order for this to be done, students need to held accountable for their reading by teaching them to respond to the text through discussions, conferences, and written responses (Hudson & Williams, 2015). Yet, the structure of holding students accountable through text discussions is largely missing from elementary school classrooms. For example, a study of more than 200 American classrooms found that dialogic exchanges were absent from more than 90% of

observed interactions (Nystrand, et al. 2003; Reznitskaya & Glina, 2013). Student discourse must be present in today's classrooms to promote student achievement, not only in reading but also as a foundation for their educational career.

Problem

The expectations in the elementary school classroom are far higher in today's schools that they were before the implementation of the Common Core State Standards but the literacy rate in Connecticut has not increased (Connecticut State Department of Education, 2016). Since 1998, the reading scores in Connecticut have remained stagnant at slightly below the proficient mark according the National Assessment of Educational Progress. Only 43% of students in public schools in Connecticut are reading at or above proficiency (NAEP, 2015). The implementation of the Common Core State Standards was aimed to implement research-based, rigorous standards that would more aptly prepare students for college and career readiness than the previous Connecticut standards. This has not been the case.

Solution

The Common Core Speaking and Listening standards require students to develop a range of broadly useful oral communication and interpersonal skills. Students must learn to work together, express and listen carefully to ideas, evaluate what they hear, and adapt their speech to the context and task at hand (NGA & CCSSO, 2010, p.8). The classroom teacher is not well equipped, nor adequately trained in most districts, to implement these standards to their full extent, and as a result, student growth is suffering. Classrooms need to move away from teacher-directed instruction. A discussion-based classroom where teachers and students act as co-inquirers into complex issues, sharing responsibilities for managing group participation, asking

questions, and evaluating each other's judgments through reasoning and reflection, promotes critical thinking and deepens comprehension (Billings & Fitzgerald, 2002; Mercer & Littleton, 2007; Nystrand et al., 2003; Reznitskaya & Glina, 2013; Soter et al., 2008). With this model in place, students will succeed.

Theoretical Perspective

In 1934, Russian psychologist Lev Vygotsky proposed the Social Development Theory under the umbrella of Social Constructivism. The Social Development Theory asserts that social interaction in the form of dialogue plays a fundamental role in cognitive development. Vygotsky (cited in Nichols, 2006) further emphasized that learning best occurs when the learner engages in purposeful talk; a negotiation of meaning, with a more capable peer in the Zone of Proximal Development (ZPD). Vygotsky (1978) referred to scaffolded learning as a gradual release of responsibility. It is the distance between what a child can do on his own, and what he can become through the guiding hand of a more experienced adult (Vygotsky, 1978). With the belief that sharing ideas within a community plays a central role in the process of "meaning making," Vygotsky's findings guided the premise that an increase in classroom discourse around high quality text will result in an increase in reading comprehension.

Research Questions

1. What are effective tools for facilitating student discourse in the classroom?
2. How does student discourse impact reading achievement in the elementary classroom?
3. What role does the teacher play in helping students take ownership over classroom discussion?
4. What, if any, are other benefits of regular, ongoing classroom implementation of discourse?

Section 2: Literature Review

Historical Perspectives

No one knows definitively when language evolved, but fossil and genetic data suggest that humanity can probably trace its ancestry back to humans who lived around 150,000 to 200,000 years ago (Pagel, 2017). Since the first humans, language has evolved into the complex communication systems we have today. Within the English language, there is an endless capacity for generating new sentences as speakers combine and recombine sets of words into their subject, verb, and object roles. For instance, with just 25 different words for each role, it is possible to generate over 15,000 distinct sentences (Pagel, 2017). This evolution of human language has given our classroom discourse infinite opportunities to flourish. In the modern classroom, language happens through oral conversations, written dialogues, and electronic messages. The list is ever expanding.

As language developed, so did the research around oral conversation. Research conducted by the Institute of Learning, an entity created through a partnership between The Learning Research and Development Center of the University of Pittsburgh and school districts nationwide, resulted in a set of core beliefs, or principles, known collectively as The Principles of Learning (Nichols, 2006; Resnick, 1999). Within the principles is the core belief of *Accountable Talk (AT)*. Resnick (1999) further defined the particular type of discussion as talk that seriously responds to and further develops what others in the group have said. *AT* puts forth and demands knowledge that is accurate and relevant to the issue under discussion in which discussants are accountable to accurate knowledge, rigorous thinking, and the community (1999). Additionally, *AT* uses evidence in ways appropriate to the discipline that is under consideration. Finally, it follows established norms of good reasoning (Resnick, 1999). Since this

publication, student discourse in the classroom has developed further and is now a mandated aspect of classroom instruction under the Common Core Standards.

A considerable number of approaches to conducting classroom discussions exist in the literature. Prior to the Common Core Standards, research identified many discussion approaches characterized by a peer-reviewed collection of research (Wilkinson, Murphy, & Soter, 2003; Soter et al., 2008; Murphy et al., 2009). Several research studies focus on peer-to-peer discussions in general, such as *Collaborative Reasoning* (Anderson, Chinn, Waggoner, & Nguyen, 1998), *Paideia Seminar* (Billings & Fitzgerald, 2002), *Philosophy for Children* (Sharp, 1995), *Instructional Conversations* (Goldenberg, 1993), *Purposeful Discussion* (McIntyre, 2007), *Grand Conversations* (Eeds & Wells, 1989), and *Socratic Seminars* (Tredway, 1995). Other studies describe the conversation strategies focused particularly around reading, including *Junior Great Books Shared Inquiry* (Great Books Foundation, 1987), *Questioning the Author* (Beck & McKeown, 2006; McKeown & Beck, 1990), *Book Club* (Raphael & McMahon, 1994), and *Literature Circles* (Short & Pierce, 1990). Regardless of the label, facilitating student talk within the classroom is an experience that deepens understanding and promotes critical thinking (Lawrence & Snow, 2011).

Deepening Comprehension

Reading comprehension is an integral part of reading instruction at all grade levels. A central finding within the literature on student learning is that the quality of classroom talk is strongly associated with the depth of student learning, understanding, and problem solving (Li, Murphy, & Firetto, 2014; Mercer, 2002; Nystrand et al., 2003; Wegerif, Mercer, & Dawes, 1999). These components can be directly addressed using different discourse methods.

Discussions provide an opportunity for students to ask and answer questions, share ideas, put forth alternatives, and challenge ideas. As a result, students reach higher levels of thinking and comprehension through thoughtful elaboration and co-construction of meaning about and around the text. Further, as a pedagogical tool, discourse provides a window through which educators can glean understanding regarding students' comprehension (Li, Murphy, & Firetto, 2014). This concept is deeply rooted in the social constructivist and social cognitive theories, specifically using talk as an effective tool for promoting thinking (Vygotsky, 1978; Wilkinson, Murphy, & Soter, 2010, p. 144).

While different forms of student discourse has existed for years, Murphy and colleagues (Murphy et al., 2009) conducted a meta-analysis of empirical research conducted on the aforementioned approaches to text-based discussion. The meta-analysis resulted in several findings, the most important being that not all approaches to student discourse were equally effective at promoting comprehension. Simply increasing student talk in the classroom was not effective, nor was an overly prescriptive and highly structured facilitation of dialogue (Murphy et al., 2009).

A meta-analysis by Murphy and colleagues (2009) concluded that student gains in comprehension were strongest when they took a critical and analytical stance in analyzing the text. A total of forty-two studies were analyzed in the meta-analysis and included anywhere from five students to 720 students. The mean ages ranged from six to 17.5 and include a diverse range of abilities, backgrounds, economic status, and locations. Finding confirmed that structure and facilitation of the discussion is equally important.

The most effective discussion approaches had sufficient structure for those involved to understand their role, but not so much as to where the discussion appeared prescriptive. Finally,

when the teacher gradually released control to the students and their authority was recognized and reinforced, the strongest comprehension gains were seen (Murphy et. al., 2009). While Pearson and Gallagher (1983) originally developed the gradual release model, Vygotsky (1978) is generally credited with the concept of instructional scaffolding.

Soter and colleagues (2008) analyzed the nature of talk to identify the most effective approaches. In a study of nine different discussion approaches in grades 3-9, consisting of four 5-30 minute videos or transcripts for a total of 36 discussions in all, results indicated that students contributed more fully to discussions when the dominant approach required them to take an expressive stance when interacting with text. Examples of approaches in which students took an expressive stance include *Book Club*, *Literature Circles*, and *Grand Conversations*.

By contrast, in those approaches in which an efferent stance was dominant, teachers tended not only to facilitate conversations, but also participated the most. Examples of teacher-led discussions include *Instructional Conversations*, *Junior Great Books*, and *Question-the-Author*. And finally, when the dominant approach encompassed a critical and analytic stance, the number of student participants diminished as teacher talk increased. Examples of approaches utilizing a critical-analytic stance include *Collaborative Reasoning*, *Paedia Seminar*, and *Philosophy for Children*.

The more critical-analytic and the more expressive approaches seemed to offer the greatest opportunities for students to engage in high-level thinking and reasoning. Overall, findings from the analysis of discourse support the view that productive discussions are structured and focused yet not dominated by the teacher. They suggest that productive discussions occur when students hold the floor for extended periods of time, where students are

prompted to discuss texts through open-ended or authentic questions, and where discussion incorporates a high degree of uptake (Soter, et al., 2008).

Further findings confirmed the significance of discourse itself (Soter et al., 2008). Participants in the discussions asked more open-ended, authentic questions, rather than factual knowledge questions. Students provided longer, comprehensive responses that included extended reasoning to explain their position, and collaborated to build their understanding of the text (Soter et al., 2008). This co-construction of meaning resulted in increased comprehension and student ownership over learning.

Wilkinson and colleagues (2010) combined the most effective discussion approaches into a model of discussion titled *Quality Talk (QT)*. QT includes two interconnected strands that build a foundation of this model. Four components characterize the first strand: the instructional frame refers to the set of parameters important for promoting QT about a text. The pedagogical principles comprise understandings about language and pedagogy that is considered essential to fostering a culture of dialogic inquiry in the classroom. Teacher moves are conversational directives that teachers employ to generate student talk about text. Finally, discourse elements are discursive elements teachers use to promote and to recognize productive talk about text. For example, asking authentic questions that invite a range of responses. The second strand includes teacher professional learning, discourse coaching, and explicit lessons for students on their role in the discussion (Wilkinson et al., 2010).

After developing the QT model, Reninger and Wilkinson (2010) examined the ways low-achieving readers in the fourth and fifth grades used discussion about literary texts to cultivate higher-level comprehension. A total of 18 fourth graders and 24 fifth graders in two different classes were observed over the course of one school year. At the conclusion of the study, through

the dialogue of the discussion, the low-achieving readers talked and thought in higher-level ways about text, and they developed interpretations of text that promoted higher-level comprehension. Giving student the opportunity to engage in discussions with their peers, they were able to provide authentic, collaborative contexts that motivated their higher-level thinking about a text and resulted in increased comprehension (Reninger & Wilkinson, 2010).

Li, Murphy, and Firetto (2014) also implemented the most recent model of QT in a study of student discourse of both narrative and informational texts. Thirty-two elementary students enrolled in 4th and 5th grade classrooms in the northeastern United States participated in a 12-week study to determine the effectiveness of QT. The teachers involved in the study had taught between 10 and 18 years and received professional development training at the beginning of the study and coaching over the course of the 12 weeks.

The goal was to determine the extent to which teacher-questioning patterns and student responses influenced high-level comprehension in an elementary school setting. The discourse indicators analyzed during the study included authentic questions, test questions, elaborated explanations, and exploratory talk. Results of the study found that discussion around narrative texts produced higher levels of student comprehension than informational text discussions. The elaborated explanations contained more dialogue and the exploratory talk lasted for a longer period when discussing narrative texts (Li, Murphy, & Firetto, 2014). However, this is not to say that there was a negative impact on comprehension of informational text. Comprehension increased, albeit not as significantly as the narrative genre.

Murphy and colleagues (2017) and researchers from the University of North Carolina-Chapel Hill investigated the impact of small, group-text based discussion and comprehension.

The study followed four teachers and their 62 fourth and fifth grade students over the course of one school year. Students were grouped homogeneously based on ability.

Results concluded that low- and high-ability students engaged in the discussions differently within small groups. High-ability students asked deeper, more relevant questions than their low-ability students. High-ability students also produced more in-depth responses, perhaps because of their greater engagement with the text, compared to low-ability students. Students in the low-ability group focused on talking around the text, rather than engaging with the text itself or the topic of that text. This type of discourse can promote basic comprehension but not necessarily ensure high-level comprehension for all students. The question remains: How to differentiate structured talk to maximize the potential for all students to engage in discussion?

In sum, the research showed that students displayed growth in basic and high-level comprehension when implementing discourse in small group intervention. Such findings demonstrate the promise of literacy interventions that include explicit instruction of productive discourse and support for teacher scaffolding (Murphy et al., 2017). The implementation of small group discussion provides a scaffold for students at all ability levels.

Researchers McKeown, Beck, and Blake (2009) analyzed various comprehension strategies through the use of text talk, or discourse. A total of 119 fifth and sixth grade students from a small urban school in southwestern Pennsylvania participated in the study. All students received reading instruction in their regular classroom from their general education teacher. Transcripts of lessons were analyzed for two key criteria, including the proportion of the discussion that was text-based, and the length of student responses, calculated as number of words per student response. After implementing text based discourse and high-level questions, results indicated that 98% of students scored above 50% on the final comprehension assessment

and about half of the scores were above 80% (McKeown, Beck, & Blake, 2009). Indicating that text based discussion had a positive impact on student comprehension.

Wolf, Crosson, and Resnick (2006) conducted a study on the topic of *Accountable Talk (AT)* to examine the relationship between the quality of classroom talk and academic rigor in reading comprehension lessons. In addition, the study aimed to characterize effective questions to support rigorous reading comprehension lessons. Over the course of two years, a total of 21 teachers from ten schools agreed to allow the research team to observe their reading comprehension lessons. A group of 441 students, ranging from first through eighth grades participated in the study.

Results from the study indicated that AT moves had a positive and strong relationship with the level of rigor in the lessons. Specifically, the ratings of the academic rigor were highly predicted by the moves concerning students' accurate knowledge and rigorous thinking. In addition, students' active participation was a key factor in determining the rigor of the lesson. This study provided supportive evidence that classroom discourse including listening to others, questioning other's knowledge, and exploring one's own thoughts has a positive relationship with the academic rigor of reading comprehension (Wolf, Crosson, & Resnick, 2006).

A significant number of researchers have conducted studies that support the notion that student discussion has a positive impact on reading comprehension. The culmination of research around AT, QT, and other classroom discourse methods provide conclusive evidence that increased reading comprehension is a direct result of successful student discourse. However implemented, the inception of student discourse in the 21st century classroom is a requisite life skill.

Section 3: Methodology

Studies have verified the benefits of using classroom discussion to increase overall student achievement (Li, Murphy, & Firetto, 2014; McKeown, Beck, & Blake, 2009; Murphy et al., 2017; Wolf, Crosson, & Resnick, 2006). The studies stressed the importance of teacher facilitation during discussion and the overall goal of student ownership over discussion. This study investigated Statement Stem Discourse (SSD) and the impact it had over student ownership of the discussion around literature.

Teachers trained in the most effective discussion techniques and questioning methods enable students to assume considerable responsibility for the success of the discussion by initiating topics and making unsolicited contributions (Danielson, 2007, p. 82). Teachers must explicitly teach students, through the gradual release model, to take full ownership over a discussion and the technique requires often practice. The ultimate goal is that students assume considerable responsibility for the success of the discussion, initiate topics, and make unsolicited contributions (Danielson, 2007, p. 82).

Based on Resnick's groundbreaking 1999 research, Michaels, O'Connor, Hall, and Resnick (2010) lay the foundation for a successful implementation of student discussion. They defined AT as classroom talk (by both students and teachers) that supports students to attend to the classroom community, to knowledge, and to accepted standards of reasoning (Michaels, O'Connor, & Resnick, 2008). In AT classrooms, students reason, think together, build on one another's ideas, and hold one another accountable for the knowledge that they put forth. As such, this approach aims for a classroom culture that supports equity and access to academic learning through talk (Resnick, 2010; van der Veen et al., 2017). Resnick's work provided a basis for the AT/SSD model defined here.

Participants

The participants of this research resided in a small, wealthy New England town. The public school district in which the research took place is a high achieving district that consisted of five schools with a total population of approximately 4,227 students, including approximately 1,800 elementary students. The population of students was 87% White, 5.6% Asian, 3.9% Hispanic, 1.3% Black, and 1.9% of two or more races. The district performance index in English Language Arts was 82.2, ranking above the Connecticut state target of 75. The high performance of students within the district has resulted in 94.9% of students to enter into college after completion of high school (CSDE District Profile, 2015-2016).

As the facilitator of this study, I am a certified female teacher with five years of elementary teaching experience and a master's degree. The study included 19 fourth grade students, consisting of 9 female and 10 male students, ranging in ages from 9 -10, in which there was one English Learner and one student whose required vision accommodations. The selection of students was through the method of convenience sampling within my own classroom.

The duration of the study was over a six week period. Students were somewhat familiar with classroom conversation formats as the result of a school-wide focus on student discourse in the classroom that occurred one year prior to this study. Although the small sample would not be sufficient to generalize results, the intent and purpose of this action research project was to enhance and improve my own practice in the pedagogy of student discourse. If I were successful, then I would be better positioned to conduct staff development to colleagues, and would be able to replicate the study using a greater sample in the future.

Materials

A selection of statement stems, grounded in cognitive and social development theory for the purpose of eliciting student interactions, were posted on the walls of the classroom. In this way teachers could easily facilitate and prompt conversation, while students had immediate access to conversation starters.

Sample stems included:

1. Can anyone add on to what _____ said?
2. What did you mean by _____?
3. So what you are saying is that _____?
4. Do you agree with _____?

Similarly, student discussion stems included language for students to respectfully state opinions, expand upon, or clarify information.

1. I think/believe that _____.
2. My perspective is similar to _____ because _____.
3. I have a different point of view; I think _____.
4. I don't quite understand _____.

Statement Stem Discourse as the Curricular Methodology

The Accountable Talk® (AT) Sourcebook (Michaels et al., 2010) was the curricular methodology that undergirded whole-group discussion. The sourcebook set the foundation for academically productive talk, shown to result in robust academic achievements for students of all economic, social and linguistic backgrounds. The AT sourcebook puts forth and demands knowledge that is accurate and relevant to the issue under discussion. The academically

productive talk used evidence appropriate to the discipline and followed established norms of good reasoning. In this format, the students contributed their own ideas and knowledge, and engaged with others' ideas and suggestions (Michaels et al., 2010). A non-judgmental setting encouraged students to share their thoughts and opinions. Additional materials included an iPad for the recording of discussions, data collection sheet (Appendix A), and high quality texts that were accessible to all students.

The gradual release format of AT/SSD consists of initial discussion steps that gradually allows students to take more responsibility for generating and maintaining discussion. The gradual release format of AT/SSD consists of initial discussion steps that gradually positions students to take more responsibility for generating and maintaining discussion. The ultimate goal of AT/SSD is that students assume considerable responsibility for the success of the discussion, initiate topics, and make unsolicited contributions (Danielson, 2007, p. 82).

Procedure

Prior to each discussion, the teacher read aloud a trade book to the class. During the read aloud, the teacher asked literal comprehension questions to make sure students had a basic understanding of the text. The texts and questions under consideration required careful selection, including accessibility to the whole group, both visually and intellectually, and rich content to support multiple points of entry and multiple perspectives during the discussion (Michaels et al., 2010).

After reading the text, the teacher began the discussion by posing a previously planned, text-based question to launch the discussion. As the discussion continued, the teacher posed additional questions. The teacher administered a baseline at the start of a six-week period,

providing only sentence stems for students. Prior to the baseline, students received no formal coaching. Data collection included responses based on several criteria:

1. Did the student share his/her opinion about the question or text?
2. Did the student use text evidence to support their response?
3. Did the student elaborate upon another student's response?
4. Length of student response.
5. Total number of student responses.

Responses were scored using a rubric (Appendix B).

Following the baseline, explicit instruction around the topic of student discourse took place three times per week for a total of six weeks. The AT/SSD model began by establishing three main aspects of the AT classroom: introducing talk formats, teacher moves, and norms for equitable and respectful participation (Michaels et al., 2010). The following provided a foundation for teachers to use: re-voicing, restating, reasoning, adding on, and wait time (Chapin, O'Connor, & Anderson, 2009). During explicit instruction, the teacher modeled optimum responses, provided feedback based on student responses, and students practiced and expanded upon sentence stems. The teacher expected and stressed student participation throughout the process.

Text based discussions took place three times per week for a total of six weeks, directly following the explicit instruction around student discourse. After the discussion took place, students received specific feedback regarding the caliber of discussion, including areas for improvement. After three weeks, additional data collection occurred in the same fashion as the baseline. The final data collection occurred at the end of the six-week period, see Appendix A.

Section 4: Data Collection and Analysis

Data collection from multiple sources took place over the course of six weeks. Sources included videotapes of classroom discussions scored using a rubric, pre and post reading comprehension scores as measured by written prompts, and recording of the frequency and nature of teacher prompts. Data collection occurred at the beginning of the research period, after three weeks, and at the end of six weeks, with the exception of the written comprehension prompts, which were administered at pre and post testing only.

Over the course of the study, I recorded three discussions using a video camera. A rubric guided the coding of videotapes taken during the study (Appendix B). I coded the student responses using four criteria: shared opinion, provided text evidence, elaborated upon other students' response, and length of response in sentences. Following the scoring of each response, I calculated the mean for each category of criteria. A comparison of means following the scoring of each response revealed an increase of all discussion techniques.

During the videotapes, I recorded the frequency and nature of teacher prompts and coded based on a rubric (Appendix C). Possible teacher prompts included posing a new question, redirecting the discussion, or clarifying a student response. I analyzed the totals for each category for trends from pre to post testing.

I administered written prompts prior to instruction of discourse strategies and at the end of the study to measure student comprehension through written response. I gave students the prompt, "describe the theme of the text, support your answer with evidence from the text." This common prompt was used many times throughout the year and all students were familiar with

the concept of theme. I scored the prompts using a rubric (Appendix D), calculated the mean, and analyzed the data for trends from pre to post testing.

Using the recorded videos after post-testing, I analyzed and calculated the mean score for each recorded discussion in each category of student discourse (see Table 1) and the categories of teacher prompts (see Table 2). The mean score for pre and post comprehension (see Table 3) was also calculated and analyzed for trends at post-testing.

Results

Table 1 compares AT/SSD using several discourse features. From pre to post-testing, there was an increase in sharing of opinion, providing sufficient evidence, elaborating upon other's response, and length of response. The mean scores were calculated with a maximum score of three. The mean score for shared opinion increased from 2.35 to 2.81, representing an increase in the number of students (n=19) who shared a comprehensive response and used text-based evidence to reflect deep understanding of the text. From pre to post testing, the mean scores for responses providing sufficient evidence increased from 1.61 to 2.61, which represents an increase in the number of students (n=19) who used exact wording and demonstrated a deep understanding of the text.

The mean scores for elaboration upon another student's response increased from 1.34 to 2.46, indicating a significant increase of students (n=19) that elaborated and built upon other students' response demonstrating deep understanding of the text. Finally, the mean scores for length of student responses increased from 2.19 to 2.69, indicating an increase of students sharing a response greater than six sentences. Overall, from pre to post testing, findings indicate that students (n=19) became more skilled at using the AT/SSD model during class discussions.

Table 2 compares the total teacher intervention using prompts during AT/SSD. From pre to post testing, the total teacher prompts decreased from 13 to 9. This indicates an overall decrease in students' dependency on the teacher during the discussions. From pre to post testing, posing of a teacher's new question remained constant at four, indicating that the teacher was still responsible for posing questions during the discussion. From pre to post testing, the number of times the teacher redirected the discussion decreased from seven to five, indicating a decreased dependency on the teacher to keep the discussion on track. Finally, teacher clarification of student responses decreased from two to one, indicating that teacher clarification was not needed based on student responses. Overall findings indicated that teacher interventions decreased as students became more independent with AT/SSD.

Table 3 compares mean score for student comprehension as scored by a rubric with a maximum point value of two (see Appendix D). From pre to post testing, student comprehension increased from 1.37 to 1.66, indicating that AT/SSD had a positive effect on student comprehension. While the mean score for comprehension increased, it is also important to note that additional reading instruction was occurring outside of AT/SSD and comprehension gains cannot be fully credited to student discourse.

As a result of this project, mean scores for sharing of opinions, providing evidence, elaboration upon others' responses, and length of student responses increased. These increases played a role in increased student comprehension and decreased dependency on the teacher for prompts and leadership during class discussion. These results indicate that SSD/AT had a positive overall effect on classroom discourse and student growth.

Section 5: Discussion, Recommendations, Conclusions

The purpose of the study was to study the effects of discourse strategies in a fourth grade classroom. SSD/AD was the curricular methodology that guided the discourse implemented in this study. Data collection of teacher prompting and student comprehension occurred at pre and post testing and mean scores guided the overall results.

Four research questions guided the focus of this study. The questions focused on effective tools for facilitating student discourse, the effect of discourse on reading achievement, the teacher's role in discourse, and additional benefits of classroom discourse. To answer the first research question, "what are effective tools for facilitating student discourse in the classroom," we looked to the AT/SSD procedure introduced in this study. The ultimate goal of student discourse was that students assume considerable responsibility for the success of the discussion, initiate topics, and make unsolicited contributions (Danielson, 2007, p. 82). The AT/SSD model proved to be an effective model for initiating student discourse, as indicated by an increase of mean of student responses during AT/SSD which is demonstrated in Table 1.

It is important to point out that "true discussion occurs when students talk to one another without the teacher always being the intermediary" (Fisher, Frey, & Hattie, 2016). This model supports teacher prompts through posing questions, redirecting, or clarifying. Other models, such as Collaborative Reasoning (Chinn, Anderson, & Waggoner, 2001), Quality Talk (Wilkinson, Soter, & Murphy, 2010), and Questioning the Author (Beck, McKeown, Sandora, Kucan, & Worthy, 1996) are examples of approaches that promote a critical-analytic stance in which text-based evidence supports reasoning. Others, like Book Club (Raphael & McMahon, 1994) and Grand Conversations (Eeds & Wells, 1989), promote an aesthetic stance in which personal experiences and feelings support reasoning. Still others, like Instructional Conversations (Tharp

& Gallimore, 1988) and Literature Circles (Short & Pierce, 1998), promote both types of reasoning. The big picture, though, is that all of these approaches reflect instruction that align with many of the linguistic demands of the standards driven classroom (Beaulieu-Jones & Proctor, 2016). SSD/AT model blends teacher prompting, critical analysis, and aesthetic responses, therefore promoting text-based analysis and well-supported opinions around text.

The second research question addressed by this study was how does student discourse impact reading achievement in the elementary classroom. Through written prompts, student comprehension increased with the implementation of the SST/AT model as demonstrated through increased mean of comprehension scores (see Table 3). Of course, the goal of collaborative discussion is the discussions themselves, but comprehension of the text is elevated in post reading conversations (Beaulieu-Jones & Proctor, 2016). Collaborative discussion have been shown to deepen text comprehension (Chinn et al., 2001; Reznitskaya et al., 2009; Wilkinson et al., 2010) and promote academic language development (August, Branum- Martin, Cardenas- Hagan, & Francis, 2009; Vaughn et al., 2009). The SSD/AT discussion framework is no exception. While it is important to note that additional reading instruction was happening outside of SSD/AT, classroom discourse is a proven method shown to to increase comprehension.

The third research question addressed by this study was what role does the teacher play in helping students take ownership over classroom discussion. As a result of this study, the need for teacher facilitation and redirection decreased from pre to post testing. This indicates that, with instruction and scaffolding, students are capable of having student-led discussions that contribute to increased comprehension. In peer-led discussions, students are supported and encouraged to engage in problem-solving talk that leads to a more in-depth understanding of the text (Almasi,

1995; Maloch, 2002). While in the SSD/AT model, the teacher posed the questions, it would be very possible for students to pose analytical questions in the future, with a teacher present for support and feedback.

The final research question addressed by this study was what, if any, are other benefits of regular, ongoing classroom implementation of discourse. As a result of this study, the classroom community became stronger. While there was no collection of quantitative data around classroom community, by the end of the study, everyone learned more about each other's ideas, backgrounds, opinions, and interests. Discussions thrive and comprehension deepens when students' lives and identities—including race, gender, and world views—are intentionally interwoven with classroom texts. In these classrooms, communities are formed that responsively address the often poignant situations of students' lives as they read relevant texts (Gritter, 2011; Paley, 1997). While student lives and identities were not actively integrated into text-based questions, it became clear that each conversation revealed more information about student identities.

Since this study only included one fourth grade class, future research should investigate the most effective discourse strategies across all elementary school grade levels. There are numerous research-based discussion strategies that could be implemented at different grade levels and across content areas. Further research may also investigate the facilitation of classroom discourse without teacher intervention. This would promote student questioning and increased investment within the discussion. Additionally, facilitation of professional development for teachers must continue throughout the school year to promote and support discussion within classrooms.

Finally, I will share these results at the Sacred Heart Literacy Conference in April 2018, as well as with elementary teachers at my school, in order to encourage other teachers to utilize discussion-based strategies in their own classrooms.

References

- Allington, R. L., & Gabriel, R. (2012). Every child, every day. *Educational Leadership*, 69 (6), 10 –15.
- Anderson, R. C., Chinn, C., Waggoner, M., & Nguyen, K. (1998). Intellectually stimulating story discussions. In J. Osborn & F. Lehr (Eds.), *Literacy for all: Issues in teaching and learning* (pp. 170-186). New York: Guilford Press.
- Barnes, E.M., Grifenhagen, J.F., & Dickinson, D.K.(2016). Academic language in early childhood classrooms. *The Reading Teacher*, 70(1), 39–48.
- Beaulieu-Jones, L. & Proctor, C. P. (2016). A blueprint for implementing small-group collaborative discussions. *The Reading Teacher*, 69(6), 677–682
- Beck, I. L., & McKeown, M. G. (2006). *Improving comprehension with questioning the author: A fresh and enhanced view of a proven approach*. NY: Scholastic, Inc.
- Beck, I.L., McKeown, M.G., Sandora, C., Kucan, L., & Worthy, J. (1996). Questioning the author: A yearlong classroom implementation to engage students with text. *The Elementary School Journal*, 96(4), 385–414.
- Billings, L., & Fitzgerald, J. (2002). Dialogic discussion and the Paideia seminar. *American Educational Research Journal*, 39, 907–941.
- Calkins, L. (2010). *A guide to the reading workshop: Grades 3–5*. Portsmouth,

NH: Heinemann.

Chinn, C.A., Anderson, R.C., & Waggoner, M.A. (2001). Patterns of discourse in two kinds of

literature discussion. *Reading Research Quarterly*, 36(4), 378–411.

Clarke (Eds.), *Socializing intelligence through academic talk and dialogue* (pp. 13–36).

Washington, DC: American Educational Research Association.

Connecticut State Department of Education [State test scores up across the board]. (2016,

August 18). Connecticut, Hartford.

Criscuola, M. M. (1995). Read, discuss, reread: Insights from the junior great books

program, *Educational Leadership*, 51:58-61.

CSDE District Profile Statistics retrieved November, 20, 2017 from

http://edsight.ct.gov/Output/District/HighSchool/0900011_201516.pdf

Daniels, H. (1994). *Literature circles*. Retrieved August 8, 2007, from

<http://iws.punahou.edu/user/bschauble/sophs/litcirc.html>

Danielson, C. (2007). *Enhancing professional practice: A framework for teaching* (2nd ed.).

Alexandria, VA: ASCD.

Dewey, J. (1933). *How we think*. Chicago, ILL: Gateway.

Eeds, M., & Wells, D. (1989). *Grand Conversations: An exploration of meaning construction in*

- literature study groups. *Research in the Teaching of English*, 23, 4-29.
- Fisher, D. & Frey, N. (2014). Speaking volumes. *Educational Leadership*, 72(3), 18-20.
- Fisher, D., Frey, N., Hattie, J. (2016). *Visible learning for literacy*. Thousand Oaks, CA: Corwin.
- Fisher, D., & Frey, N. (2018). Raise reading volume through access, choice, discussion, and book talks. *The Reading Teacher*.
- Galton, M. J. (2007). *Learning and teaching in primary school*. London: Sage
- Gambrell, L. B. (2004), Shifts in the conversation: Teacher-led, peer-led, and computer-mediated discussions. *The Reading Teacher*, 58: 212-215.
- Goldenberg, C. (1993). Instructional conversations: Promoting comprehension through discussion. *The Reading Teacher*, 46, 316-326.
- Great Books Foundation. (1987). *An introduction to shared inquiry*. Chicago: Author.
- Gritter, K. (2011), Promoting lively literature discussion. *The Reading Teacher*, 64: 445-449.
- Hudson, Alida K. & Williams, Joan A. (2015). Reading every single day: a journey to authentic reading. *The Reading Teacher*, 68(7), 530–538.
- Kucan, L. (2007). Insights from teachers who analyzed transcripts of their own classroom discussions. *Reading Teacher*, 61, 228-236.

Lacour, M. M., McDonald, C., Tissington, L. D., & Thomason, G. (2017). Improving pre-kindergarten children's attitude and interest in reading through a parent workshop on the use of dialogic reading techniques. *Reading Improvement, 54*(2), 71-81.

Langer, J. (2002). *Effective literacy instruction*. Urbana, IL: National Council of Teachers of English.

Langer, J. (1990). Understanding literature. *Language Arts, 67*, 812–816.

Lawrence, J. F., & Snow, C. E. (2011). Oral discourse and reading. In M.L. Kamil, P. B. Rosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research (Vol.4, pp. 320–338)*. New York, NY: Routledge.

Li, M., Murphy, P. K., & Firetto, C. M. (2014). Examining the effects of text genre and structure on fourth- and fifth-grade students' high-level comprehension as evidenced in small-group discussions. *International Journal of Educational Psychology, 3*(3), 205-234.

McIntyre, E. (2007). Story discussion in the primary grades: Balancing authenticity and explicit teaching, *Reading Teacher*, 60, 610-620.

McKeown, M. G., & Beck, I. L. (1990). The assessment and characterization of young learners' knowledge of a topic in history. *American Educational Research Journal*, 27, 688-726.

McKeown, M. G., Beck, I. L., Blake, R. G. K. (2009). Rethinking reading comprehension instruction: A comparison of instruction for strategies and content approaches. *Reading Research Quarterly*, (3), 218.

McVittie, J. (2005). Discourse communities, student selves and learning. *Language and Education*, 48, 448-503.

Mehan, H., & Cazden, C. (2015). The study of classroom discourse: Early history and current developments. In L.B. Resnick, C. Asterhan, & S.N.

Mercer, N. (2002). The art of interthinking. *Teaching Thinking*, 7, 8-11.

Mercer, N., & Littleton, K. (2007). Dialogue and the development of children's thinking: A socio-cultural approach. London, UK: Routledge.

Michaels, S., O'Connor, C. and Resnick, L. B. (2008). Deliberative discourse idealized and realized: Accountable talk in the classroom and civic life. *Studies in Philosophy and Education*, 27.4, 283–297.

Michaels, S., O'Connor, M. C., Hall, M. W., & Resnick, L. B. (2010). Accountable talk sourcebook: For classroom conversation that works (v.3.1). Pittsburgh, PA: University of Pittsburgh Institute for Learning. Retrieved from http://ifl.pitt.edu/index.php/educator_resources/accountable_talk

Mounla, G., Bahous, R., & Nabhani, M. (2011). “I am in grade one and I can read!” The readers’ workshop. *Reading Matrix: An International Online Journal*, 11(3), 279–291.

Murphy, P. K., Greene, J. A., Firetto, C. M., Li, M., Lobczowski, N. G., Duke, R. F., Wei, L., Croninger, R. M. V. (2017). Exploring the influence of homogeneous versus heterogeneous grouping on students’ text-based discussions and comprehension. *Contemporary Educational Psychology*, 51, 336-355.

Murphy, P. K., Soter, A. O., Wilkinson, I. A., Hennessey, M. N., & Alexander, J. F.

(2009). Examining the effects of classroom discussion on students'

comprehension of text: A meta-analysis. *Journal of Educational Psychology*,

101(3), 740–764.

NAEP Statistics retrieved August, 9, 2017 from

<https://nces.ed.gov/nationsreportcard/subject/publications/stt2015/pdf/2016008CT4.pdf>

National Governors Association Center for Best Practices & Council of chief State School

Officers. (2010). *Common Core State Standards for English Language Arts and Literacy*

in History/Social Studies, Science, and Technical Subjects: About the standards.

Washington, DC: authors. Retrieved from www.corestandards.org/aboutthe-standards

Nichols, M. (2006). *Comprehension through conversation*, Portsmouth, NH:

Heinemann.

Nystrand, M., Wu, L., Gamoran, A., Zeiser, S., & Long, D. A. (2003). Questions in time:

- Investigating the structure and dynamics of unfolding classroom discourse.
Discourse Processes, 35, 135–200.
- Pagel, M. (2017). Q&A: What is human language, when did it evolve and why should we care?. *BMC Biology*, 151-6.
- Pearson, P.D., & Gallagher, M. (1983). The instruction of reading comprehension.
Contemporary Educational Psychology, Washington, DC: University of Illinois,
National Institute of Education. 8 (3): 317–344
- Raphael, T. E., & McMahon, S. I. (1994). Book club: An alternative framework for
reading instruction. *The Reading Teacher*, 48, 102-116
- Reninger, K. B., & Wilkinson, I. A. G. (2010). Using discussion to promote striving
readers' higher level comprehension of literary texts. In J. L. Collins and T. G.
Gunning (Eds.), *Building struggling students' higher level literacy: Practical ideas,
powerful solutions* (pp. 57-83). Newark, DE: International Reading Association.
- Reznitskaya, A., & Glina, M. (2013). Comparing student experiences with story
discussions in dialogic versus traditional settings. *Journal Of Educational
Research*, 106(1), 49-63.
- Rosaen, C. L., Meyer, A., Strachanz, S., & Meier, J. (2016). Learning to facilitate highly

interactive literary discussions to engage students as thinkers. *Reading Horizons*, 56(1), 69.

Sharp, A. M. (1995). Philosophy for children and the development of ethical values. *Early Child Development and Care*, 107, 45-55.

Short, K., & Pierce, K.M. (Eds.). (1998). Talking about books: Literacy discussion groups in K–8 classrooms. Portsmouth, NH: Heinemann.

Short, K. G., & Pierce, K. M. (Eds.) (1990). Talking about books: Creating literate communities. Portsmouth, NH: Heinemann

Smith, F., Hardman, F., Wall, K., & Mroz, M. (2004). Interactive whole class teaching in the National literacy and numeracy strategies. *British Educational Research Journal*, 30, 395–411.

Soter, A. O., Wilkinson, I. A. G., Murphy, P. K., Rudge, L., Reninger, K., & Edwards, M. (2008). What the discourse tells us: Talk and indicators of high-level comprehension. *International Journal Educational Research*, 47, 372-391.

- Townsend, J. S., Pace, B. G. (2005). The many faces of gertrude: Opening and closing possibilities in classroom talk. *Journal of Adolescent and Adult Literacy*, 48, 594-605.
- Tharp, R.G., & Gallimore, R. (1988). *Rousing minds to life: Teaching, learning, and schooling in social context*. New York, NY: Cambridge University Press.
- Tredway, L. (1995). Socratic seminars: Engaging students in intellectual discourse. *Educational Leadership*, 53, 26-29.
- van der Veen, C., van der Wilt, F., van Kruistum, C., van Oers, B., & Michaels, S. (2017). MODEL2TALK: An intervention to promote productive classroom talk. *The Reading Teacher*, 70(6),689–700.
- Vygotsky, L. (1978). *Mind in Society*. Cambridge, MA: Harvard University Press.
- Wegerif, N., Mercer, N., & Dawes, L. (1999). From social interaction to individual reasoning: An empirical investigation of a possible sociocultural model of cognitive development. *Learning and Instruction*, 9, 493-516.
- Wilkinson, I. A. G., Soter, A. O., & Murphy, P. K. (2010). Developing a model of quality talk about literary text. In M. G. McKeown and L. Kucan (Eds.), *Bringing reading research to life* (pp. 142-169). NY: Guilford Press.
- Wolf, M. K., Crosson, A. C., Resnick, L. B., & National Center for Research on

Evaluation, S. C. (2006). Accountable talk in reading comprehension instruction. CSE Technical Report 670.

Appendix A

Student Discussion Data Collection Chart

Student Name	A. Shared Opinion (1-3)	B. Provided Sufficient Evidence (1-3)	C. Elaboration upon another student's response (1-3)	D. Length of response (1-3)
Mean:				

Appendix B

Student Discussion Rubric

	SCORE 1	SCORE 2	SCORE 3
A. How did the student share his/her opinion about the question or text?	No or minimal (a few words) response reflected student's limited understanding of text	Response reflects student's understanding with some text-based evidence	Comprehensive response and text-based evidence reflects student's deep understanding of the text
B. How did the student provide text evidence for their response?	Provided no or minimal textual evidence with general statements	Was able to provide significant evidence from the text by summarizing or paraphrasing the text.	Provided exact wording and demonstrated deep understanding of the text
C. How did the student elaborate upon another student's response?	Did not elaborate or respond to another student	Began with elaboration but did not connect to their own thought	Elaborated and built upon other students' response demonstrating deep understanding of the text
D. Length of student response	1-2 Sentences	2-5 Sentences	6+ Sentences

Appendix C

Teacher Prompts

Teacher Prompt	Posed a new question	Redirected the discussion	Clarified a student response

Appendix D

Written Response Rubric

2	<ul style="list-style-type: none"> -Answers all parts of the question -Provides 2 examples of text evidence to support response -Demonstrates deep comprehension of text with no misunderstandings
1	<ul style="list-style-type: none"> -Answers some of the question -Provides 0 or 1 examples of text evidence to support response -Demonstrates partial comprehension of text
0	<ul style="list-style-type: none"> -Answer does not reflect question prompted or answer is incorrect -Does not provide text evidence to support response -Does not demonstrate comprehension of text

Table 1

Mean of student responses during AT/SSD as scored by rubric in Appendix A

Date	Shared opinion	Provided sufficient evidence	Elaboration upon another student's response	Length of response
Feb 1	2.35	1.61	1.34	2.19
Feb 15	2.69	2.27	2.04	2.5
Mar 1	2.81	2.61	2.46	2.69

Table 2

Total teacher interventions during AT/SSD

Date	Total teacher prompts	Posed a new question	Redirected the discussion	Clarified a student response
Feb 1	13	4	7	2
Feb 15	12	6	5	1
Mar 1	9	4	5	0

Table 3

Mean student comprehension as scored by rubric in Appendix D

Date	Comprehension
Feb 1	1.37
Mar 1	1.68

